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**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicants: PEPYS et al.

Application No. : 10/559,814

Filing Date:

Date: June 21, 2007

Page

1

of

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Examiner: Ruixiang Li Group Art Unit: 1646

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AR	6,365,570	04/2002	Van Kessel et al.	514	8	
	BR	6,126,918	10/2000	Pepys et al.	424	9.1	
	CR	7,045,499 B2	05/2006	Pepys	514	2	
	DR	4,783,480	11/1988	Wakatsuka et al.	514	423	
	ER	4,895,872	01/1990	Nitecki et al.	514	546	
	FR	6,103,910	08/2000	Hertel et al.	548	523	

FOREIGN PATENT DOCUMENTS

		Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
						Enclosed	No	Enclosed	No
	GR	EP 0915088 A1	05/1999	EPO	Hertel et al.	Yes		Yes	
	HR	WO 95/05394	02/1995	WIPO	Pepys et al.	Yes		Yes	
	IR	WO 97/46098	12/1997	WIPO	Theodore et al.	Yes		Yes	
	JR	WO 98/50420	11/1998	WIPO	Adang et al.	Yes		Yes	
	KR	WO 03/013508	02/2003	WIPO	Pepys	Yes		Yes	

OTHER (Including in this order Author, Title, Periodical Name, Pertinent Pages, Date, etc.)

	LR	
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Examiner /Ruixiang Li/

Date Considered: 02/27/2009

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /R.L./

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AR	Andersen, O., Vilsgaard Ravn, K., Sorensen, I.J., Jonson, G., Holm Nielsen, E. and Svehag, S. -E., Serum amyloid P component binds to influenza A virus haemagglutinin and inhibits the virus infection <i>in vitro</i> . <i>Scand. J. Immunol.</i> , 46:331-337, 1997.
BR	Ashton <i>et al.</i> , "Pentameric and decameric structures in solution of serum amyloid P component by X-ray and neutron scattering and molecular modelling analyses", <i>J. Mol. Biol.</i> 272 , 408-422, 1997.
CR	Askarov <i>et al.</i> , "Treatment of osteoarthritis deformans with heparin," <i>Database biosis 'Online! Biosciences information service</i> 67(3) , 190-192, 1986.
DR	Athanasou <i>et al.</i> , "Localized deposition of amyloid in articular cartilage," <i>Histopathology (Oxford)</i> 20(1) 41-46, 1992.
ER	Baltz <i>et al.</i> , "Calcium-dependent aggregation of human serum amyloid P component", <i>Biochim. Biophys. Acta</i> 701 , 229-236, 1982.
FR	Baltz, M.L., de Beer, F.C., Feinstein, A., Munn, E.A., Milstein, C.P., Fletcher, T.C., March, J.F., Taylor, J., Bruton, C., Clamp, J.R., Davies, A.J.S. and Pepys, M.B. Phylogenetic aspects of C-reactive protein and related proteins. <i>Ann. N. Y. Acad. Sci.</i> , 389:49-75, 1982.
GR	Baltz, M.L., Dyck, R.F. and Pepys, M.B., Studies of the <i>in vivo</i> synthesis and catabolism of serum amyloid P component (SAP) in the mouse. <i>Clin. Exp. Immunol.</i> , 59:235-242, 1985.
HR	Bartley, C.J., Orford, C.R. and Gardner, D.L., Amyloid in ageing articular cartilage. <i>J. Pathol.</i> , 145:107A, 1985.
IR	Booth <i>et al.</i> , "Analysis of autoaggregation and ligand binding sites of serum amyloid P component by <i>in vitro</i> mutagenesis", <i>Amyloid and Amyloidosis</i> 1998, Ed. By R.A. Kyle and M.A. Gertz, Parthenon Publishing Group, NY, 1998, pages 23-25.
JR	Booth <i>et al.</i> , "Instability, unfolding and aggregation of human lysozyme variants underlying amyloid fibrillogenesis", <i>Nature</i> 385 , 787-793, 1997.
KR	Borman, "Chemistry Highlights 2002, Medicinal and Combinatorial Chemistry," <i>Chem. Eng. News</i> 80 , 37-38, 2002.
LR	Breathnach, S.M., Kofler, H., Sepp, N., Ashworth, J., Woodrow, D., Pepys, M.B. and Hintner, H., Serum amyloid P component binds to cell nuclei <i>in vitro</i> and to <i>in vivo</i> deposits of extracellular chromatin in systemic lupus erythematosus. <i>J. Exp. Med.</i> , 170:1433-1438, 1989.
MR	Brion, P.H. and Kalunian, K.C. (2003) <i>Osteoarthritis</i> , Oxford Textbook of Medicine, 4th Ed., Vol.3 (Warrell, D.A., Cox, T.M., Firth, J.D. and Benz, E.J., Jr., eds.), Oxford University Press, Oxford, pp.62-68.
NR	Butler, P.J.G., Tennent, G.A. and Pepys, M.B., Pentraxin-chromatin interactions: serum amyloid P component specifically displaces H1-type histones and solubilizes native long chromatin. <i>J. Exp. Med.</i> , 172:13-18, 1990.
OR	Butler, P.J.G., The folding of chromatin. <i>CRC Crit. Rev. Biochem.</i> , 15:57-91, 1983.
PR	Cary, N.R.B., "Clinicopathological importance of deposits of amyloid in the femoral head" <i>J. Clin. Pathol.</i> , 38:868-872, 1985.
QR	Caspi, D., Zalzman, S., Baratz, M., Teitelbaum, Z., Yaron, M., Pras, M., Baltz, M.L. and Pepys, M.B. "Imaging of experimental amyloidosis with ¹³¹ I-serum amyloid P component." <i>Arthritis Rheum.</i> , 30:1303-1306, 1987.
RR	Cleaveland <i>et al.</i> , "Site of action of two novel pyrimidine biosynthesis inhibitors accurately predicted by the compare program", <i>Biochem. Pharmacol.</i> 49(7) , 947-954, 1995.

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SR	de Beer, F.C., Baltz, M., Holford, S., Feinstein, A. and Pepys, M.B. Fibronectin and C4-binding protein are selectively bound by aggregated amyloid P component. <i>J. Exp. Med.</i> , 154:1134-1149, 1981.
TR	de Haas, C.J.C., van Leeuwen, E.M.M., van Bommel, T., Verhoef, J., van Kessel, K.P.M. and van Strijp, J.A.G., Serum amyloid P component bound to gram-negative bacteria prevents lipopolysaccharide-mediated classical pathway complement activation. <i>Infect. Immun.</i> , 68:1753-1759, 2000.
UR	Egan, M.S., Goldenberg, D.L., Cohen, A.S. and Segal, D., The association of amyloid deposits and osteoarthritis. <i>Arthritis Rheum.</i> , 25: 204-208, 1982.
VR	Emsley <i>et al.</i> , "Structure of pentameric human serum amyloid P component", <i>Nature</i> 367 , 338-345, 1994.
WR	Goffin, Y.A., Thoua, Y. and Potvliege, P.R., Microdeposition of amyloid in the joints. <i>Ann. Rheum. Dis.</i> , 40:27-33, 1981.
XR	Hamazaki <i>et al.</i> , "Calcium-dependent polymerization of human serum amyloid P component is inhibited by Heparin and dextran sulfate, <i>Biochimica Et Biophysica Acta</i> 998(3) , 231-235, 1989.
YR	Hamazaki, H., Ca ²⁺ -mediated association of human serum amyloid P component with heparan sulfate and dermatan sulfate. <i>J. Biol. Chem.</i> , 262:1456-1460, 1987.
ZR	Hawkins <i>et al.</i> , "Metabolic studies of radioiodinated serum amyloid P component in normal subjects and patients with systemic amyloidosis", <i>J. Clin. Invest.</i> 86 , 1862-1869, 1990.
AAR	Hawkins, P.N., Lavender, J.P. and Pepys, M.B., Evaluation of systemic amyloidosis by scintigraphy with ¹²³ I-labeled serum amyloid P component. <i>N. Engl. J. Med.</i> , 323:508-513, 1990.
BBR	Hawkins, P.N., Myers, M.J., Epenetos, A.A., Caspi, D. and Pepys, M.B., Specific localization and imaging of amyloid deposits <i>in vivo</i> using ¹²³ I-labeled serum amyloid P component. <i>J. Exp. Med.</i> , 167: 903-913, 1988.
CCR	Hawkins, P.N., Tennent, G.A., Woo, P. and Pepys, M.B., Studies <i>in vivo</i> and <i>in vitro</i> of serum amyloid P component in normals and in a patient with AA amyloidosis. <i>Clin. Exp. Immunol.</i> , 84:308-316, 1991.
DDR	Hind <i>et al.</i> , "Binding specificity of serum amyloid P component for the pyruvate acetal of galactose", <i>J. Exp. Med.</i> 159 , 1058-1069, 1984.
EER	Hind <i>et al.</i> , "Specific chemical dissociation of fibrillar and non-fibrillar components of amyloid deposits", <i>Lancet</i> , pages 376-378, August 18, 1984.
FFR	Hind, C.R.K., Collins, P.M., Baltz, M.L. and Pepys, M.B. (1985) Human serum amyloid P component, a circulating lectin with specificity for the cyclic 4,6-pyruvate acetal of galactose. Interactions with various bacteria. <i>Biochem. J.</i> 225: 107-111.
GGR	Hintner, H., Booker, J., Ashworth, J., Aubock, J., Pepys, M.B. and Breathnach, S.M., Amyloid P component binds to keratin bodies in human skin and to isolated keratin filament aggregates <i>in vitro</i> . <i>J. Invest. Dermatol.</i> , 91:22-28, 1988.
HHR	Hohenester <i>et al.</i> , "Crystal structure of a decameric complex of human serum amyloid P component with bound dAMP", <i>J. Mol. Biol.</i> 269 , 570-578, 1997.
IIR	Holmgren <i>et al.</i> , "Biochemical effect of liver transplantation in two Swedish patients with familial amyloidotic polyneuropathy (FAP-met ³⁰), <i>Clin. Genet.</i> 40 , 242-246, 1991.
JJR	Holmgren <i>et al.</i> , "Clinical improvement and amyloid regression after liver transplantation in hereditary transthyretin amyloidosis", <i>Lancet</i> , pages 1113-1116, May 1, 1993.
KKR	Hutchinson <i>et al.</i> , "Human serum amyloid P component is a single uncomplexed pentamer in whole serum", <i>Mol. Med.</i> 6(6) , 482-493, 2000.
LLR	Hutchinson <i>et al.</i> , "The petraxins, C-reactive protein and serum amyloid P component, are cleared and catabolized by hepatocytes <i>in vivo</i> ", <i>J. Clin. Invest.</i> 94 , 1390-1396, 1994.
MMR	International Search Report for PCT/GB 02/03504
NNR	International Search Report for PCT/GB2004/002445
OOR	Iversen, "Amyloid diseases: Small drugs lead the attack," <i>Nature</i> , 414 , 231-233, 2002.
PPR	Kelly, "The role of glucosamine sulfate and chondroitin sulfates in the treatment of degenerative joint disease," <i>Altern. Med. Rev.</i> 3 , 27-39, 1998.
QQR	Klabunde <i>et al.</i> , "Rational design of potent human transthyretin amyloid disease inhibitors", <i>Nature Struct. Biol.</i> 7(4) , 312-321, 2000.
RRR	Ladefoged, C., Amyloid deposits in human hip joints. A macroscopic, light and polarization microscopic and electron microscopic study of congophilic substance with green dichroism in hip joints. <i>Acta Path. Microbiol. Immunol. Scand. Sect.</i> , 90:5-10, 1982.

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SSR	Ladefoged, C., Amyloid in osteoarthritic hip joints: deposits in relation to chondromatosis, pyrophosphate, and inflammatory cell infiltrate in the synovial membrane and fibrous capsule. <i>Ann. Rheum. Dis.</i> , 42: 659-664, 1983.
TTR	Ladefoged, C., Christensen, H.E. and Sorensen, K.H., Amyloid in osteoarthritic hip joints. Deposition in cartilage and capsule. Semiquantitative aspects. <i>Acta Orthop. Scand.</i> , 53:587-590, 1982.
UUR	Ladefoged, C., Amyloid deposits in the knee joint at autopsy. <i>Ann. Rheum. Dis.</i> , 45:668-672, 1986.
VVR	Lakhanpal, S., Li, C.Y., Gertz, M.A., Kyle, R.A. and Hunder, G.G., Synovial fluid analysis for diagnosis of amyloid arthropathy. <i>Arthritis Rheum.</i> , 30:419-423, 1987.
WWR	Lindorfer <i>et al.</i> , "A bispecific dsDNA monoclonal antibody construct for clearance of anti-dsDNA IGG in systemic lupus erythematosus", <i>J. Immunol. Methods</i> 248 , 125-138, 2001.
XXR	Liu <i>et al.</i> , "Protein heterodimerization through ligand-bridged multivalent pre-organization: enhancing ligand binding toward both protein targets," <i>J. Am. Chem. Soc.</i> 127 , 2044-2045, 2005 (published on the web Jan. 27, 2005)
YYR	Mitrovic, D.R., Stankovic, A., Quintero, M. and Ryckewaert, A. (1985) "Amyloid deposits in human knee and hip joints." <i>Rheumatol. Int.</i> , 5:83-89.
ZZR	Natchus <i>et al.</i> , "Development of new hydroxamate matrix metalloproteinase inhibitors derived from functionalized 4-aminoprolines," <i>J. Med. Chem.</i> 43 , 4948-4963, 2000.
AAAR	Nelson <i>et al.</i> , "Serum amyloid P component in chronic renal failure and dialysis", <i>Clinica Chimica Acta</i> 200 , 191-200, 1991.
BBBR	Nelson, S.R., Hawkins, P.N., Richardson, S., Lavender, J.P., Sethi, D., Gower, P.E., Pugh, C.W., Winearls, C.G., Oliver, D.O. and Pepys, M.B., Imaging of haemodialysis-associated amyloidosis with ¹²⁵ I-serum amyloid P component. <i>Lancet</i> , 338: 335-339, 1991.
CCCR	Nelson, S.R., Lyon, M., Gallagher, J.T., Johnson, E.A. and Pepys, M.B., Isolation and characterization of the integral glycosaminoglycan constituents of human amyloid A and monoclonal light-chain amyloid fibrils. <i>Biochem. J.</i> , 275:67-73, 1991.
DDDR	Noursadeghi, M., Bickerstaff, M.C.M., Gallimore, J.R., Herbert, J., Cohen, J. and Pepys, M.B. Role of serum amyloid P component in bacterial infection: protection of the host or protection of the pathogen. <i>Proc. Natl. Acad. Sci. USA</i> , 97: 14584-14589, 2000.
EEER	Osmand, A.P., Friedenson, B., Gewurz, H., Painter, R.H., Hofmann, T. and Shelton, E. Characterisation of C-reactive protein and the complement subcomponent C1t as homologous proteins displaying cyclic pentameric symmetry (pentaxins). <i>Proc. Natl. Acad. Sci. USA</i> , 74: 739-743, 1977.
FFFR	Paul <i>et al.</i> , "Identification of optimal anion spacing for anti-HIV activity in a series of cosalane tetracarboxylates", <i>Bioorg. Med. Chem. Lett.</i> 10(18) , 2149-2152, 2000.
GGGR	Pepys <i>et al.</i> , "Amyloid P component. A critical review.", <i>Int. J. Exp. Clin. Invest.</i> 4 , 274-295, 1997.
HHHR	Pepys <i>et al.</i> , "Human lysozyme gene mutations cause hereditary systemic amyloidosis", <i>Nature</i> 362 , 553-557, 1993.
IIIR	Pepys <i>et al.</i> , "Human serum amyloid P component is an invariant constituent of amyloid deposits and has a uniquely homogeneous glycostructure", <i>Proc. Natl. Acad. Sci. USA</i> 91 , 5602-5606, 1994.
JJJR	Pepys <i>et al.</i> , "Isolation of amyloid P component (Protein AP) from normal serum as a calcium-dependent binding protein", <i>Lancet</i> , pages 1029-1031, May 14, 1977.
KKKR	Pepys <i>et al.</i> , "Molecular mechanisms of fibrillogenesis and the protective role of amyloid P component: two possible avenues for therapy", <i>The Nature and Origin of Amyloid Fibrils (Ciba Foundation Symposium 199)</i> , John Wiley and Sons, Chichester, 1996, pages 73-89.
LLLR	Pepys <i>et al.</i> , "Targeted pharmacological depletion of serum amyloid P component for treatment of human amyloidosis", <i>Nature</i> 417 , 254-259, 2002.
MMMR	Pepys, "C-reactive protein and amyloidosis: from protein to drugs?", <i>The Lumleian Lecture, In Horizons in Medicine, Vol. 10</i> , G. Williams, editor, pp. 397-414, 1999.
NNNR	Pepys, M.B., Dyck, R.F., de Beer, F.C., Skinner, M. and Cohen, A.S., Binding of serum amyloid P component (SAP) by amyloid fibrils. <i>Clin. Exp. Immunol.</i> , 38:284-293, 1979.
OOOR	Pepys, M.B. and Baltz, M.L. Acute phase proteins with special reference to C-reactive protein and related proteins (pentaxins) and serum amyloid A protein. <i>Adv. Immunol.</i> , 34: 141-212, 1983.
PPPR	Pepys, M.B. and Butler, P.J.G., Serum amyloid P component is the major calcium-dependent specific DNA binding protein of the serum. <i>Biochem. Biophys. Res. Commun.</i> , 148:308-313, 1987.
QQQR	Pontet <i>et al.</i> , "One step preparation of both human C-reactive protein and C1t", <i>FEBS Letters</i> 88(2) , 172-175, 1978.

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	SSSR	Riedstra <i>et al.</i> , "Study of an anti-human transthyretin immunoadsorbent - influence of coupling chemistry on binding capacity and ligand leakage", <i>J. Chromatogr. B: Biomedical Sciences & Applications</i> . 705(2) , 213-222, 1998.
	TTTR	Shaker <i>et al.</i> , "Effect of low molecular weight heparin and different heparin molecular weight fractions on aggrecanase activity: structure-function relationship," <i>Blood</i> 100(11) , Abstract No. 3849, 2002.
	UUUR	Solomon <i>et al.</i> , Heterobifunctional Multivalent Inhibitor-Adaptor Mediates Specific Aggregates between Shiga Toxin and a Pentraxin, <i>Organic Letters</i> , American Chemical Society, 7(20) , pp. 4369-4372, 2005.
	VVVR	Sorensen, K.H., Stubbe Teglbjaerg, P., Ladefoged, C. and Christensen, H.E., Pyrophosphate arthritis with local amyloid deposition. <i>Acta Orthop. Scand.</i> , 52:129-133, 1981.
	WWWR	Srinivasan, N., Rufino, S.D., Pepys, M.B., Wood, S.P. and Blundell, T.L., A superfamily of proteins with the lectin fold. <i>Chemtracts-Biochem. Mol. Biol.</i> , 6:149-164, 1996.
	XXXR	Srinivasan, N., White, H.E., Emsley, J., Wood, S.P., Pepys, M.B. and Blundell, T.L. Comparative analyses of pentraxins: implications for protomer assembly and ligand binding. <i>Structure</i> , 2:1017-1027. 1994.
	YYR	Sukenik <i>et al.</i> , "Serum and synovial fluid levels of serum amyloid a protein and c-reactive protein in inflammatory and noninflammatory arthritis" <i>J. of Rheumatology</i> 15(6), 942-945, 1988.
	ZZZR	Sunde, M., Serpell, L.C., Bartlam, M., Fraser, P.E., Pepys, M.B. and Blake, C.C.F., Common core structure of amyloid fibrils by synchrotron X-ray diffraction. <i>J. Mol. Biol.</i> , 273: 729-739, 1997.
	AAAAR	Takeda, T., Sanada, H., Ishii, M., Matsushita, M., Yamamuro, T., Shimizu, K. and Hosokawa, M., Age-associated amyloid deposition in surgically-removed herniated intervertebral discs. <i>Arthritis Rheum.</i> , 27:1063-1065, 1984..
	BBBBR	Tan, S.Y., Baillod, R., Brown, E., Farrington, K., Soper, C., Percy, M., Clutterbuck, E., Madhoo, S., Pepys, M.B. and Hawkins, P.N., Clinical, radiological and serum amyloid P component scintigraphic features of β -microglobulin amyloidosis associated with continuous ambulatory peritoneal dialysis. <i>Nephrol. Dial. Transplant.</i> , 14:1467-1471, 1999.
	CCCCR	Tennent <i>et al.</i> , "Serum amyloid P component prevents proteolysis of the amyloid fibrils of Alzheimer disease and systemic amyloidosis", <i>Proc. Natl. Acad. Sci. USA</i> 92 , 299-4303, 1995.
	DDDDR	Tennent, G.A., Butler, P.J.G., Hutton, T., Woolfit, A.R., Harvey, D.J., Rademacher, T.W. and Pepys, M.B., Molecular characterization of <i>Limulus</i> polyphemus C-reactive protein. I. Subunit composition. <i>Eur. J. Biochem.</i> , 214:91-97, 1993.
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	HHHHR	
	IIIR	

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